MAIL STOP Amendments
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of
Inventor(s): Julie Baker, et al.

FOAMED POLYMER LAYERS AS INKJET RECEIVERS

Serial No.: 10/631,236

Filed: July 31, 2003

Group Art Unit: 1774

Examiner: Schwartz, Pamela R.

Commissioner for Patents
Alexandria, VA 22313-1450

DECLARATION UNDER RULE 132

Sir:

I, Steven W. Clark, a citizen of the United States of America and a resident of the County of Monroe, State of New York, hereby declare the following:

I am an employee of the assignee of the subject application, Eastman Kodak Company;

I have received the following degrees from the institutions and in the years listed:

- A.A.S. Chemical Technology: Corning Community College – 1987
- B.S. Chemistry with Distinction: Rochester Institute of Technology - 1995

I have worked at Kodak's research laboratories for 20 years performing analyses on a wide-variety of competitive films, media, and ink products to characterize the chemical composition and/or structural architecture. The results of the product characterizations are documented in Electronic Lab Notebooks and in an analytical database of information detailing the makeup of various competitive products;

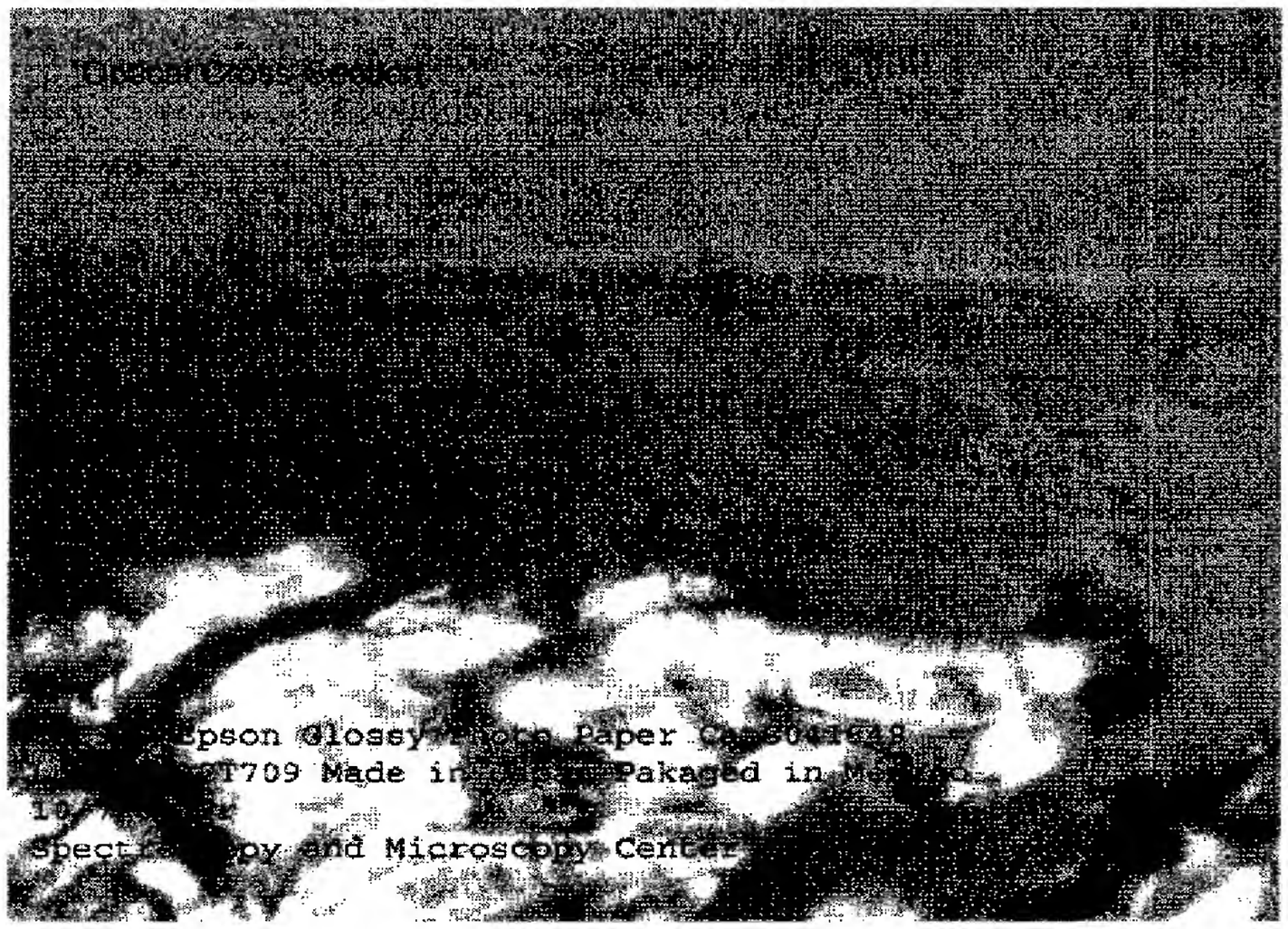
I have substantial direct laboratory experience in the characterization of inkjet media and the elements contained in the receiving

layers and consider myself knowledgeable about the properties of inkjet coatings and the materials used in these coatings and their impact on print performance;

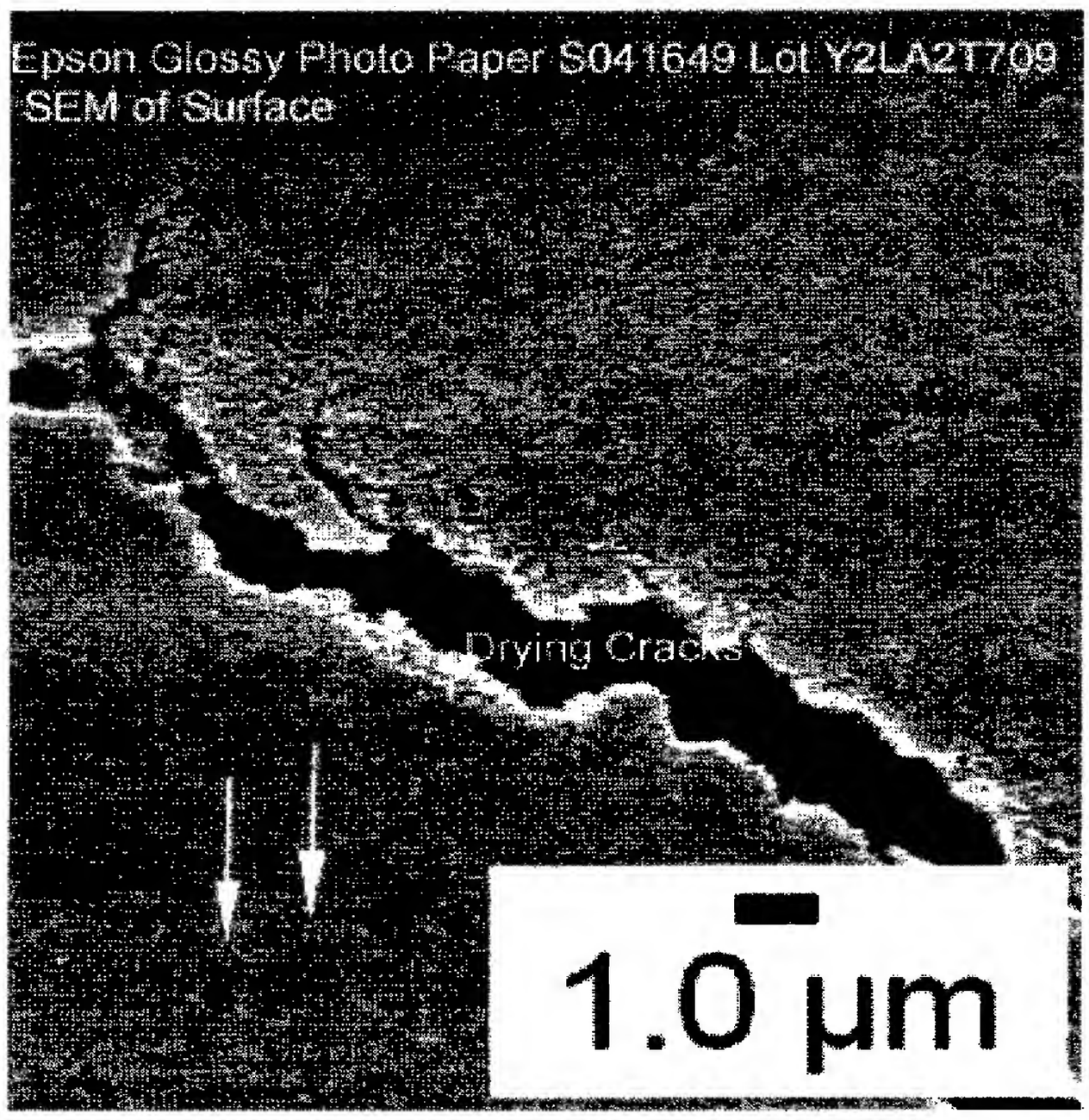
The above-captioned application includes comparative examples employing an inkjet medium identified as "Epson Glossy Photo Paper." The data in Tables 2 and 3 at pages 6 and 7 of the specification show that both the dye fade and the ozone resistance are greatly advantaged for the inventive samples vs. the Epson material. To better identify the makeup of the Epson material, I have retrieved from the database information as to the makeup of the Ink Receiving Layers (IRL's) contained in the named Paper, specifically for Epson catalog number S041649 Lot number Y2LA2T709 that was submitted for analysis in 2004, but is known by the second digit of the lot number to have been manufactured in 2002;

According to the data, this product would constitute a micro-porous media composed of 2 IRL's coated directly on a non-resin coated paper with the top layer (gloss layer) being nominally 8 microns thick composing colloidal silica and the bottom layer being nominally 32 microns thick and composed of silica gel. Both layers use polyvinylalcohol as the binder and there is evidence for a magnesium salt (claimed in Epson/Tomoegawa EP943450 to improve light resistance) and polyhydroxypropyl-N,N-dimethylammonium chloride as a polymeric mordant to improve water-fastness. Thermal Gravimetric Analysis of the ink receiving layers as removed from the paper support show that the bulk coating is 65wt% silica. A material of this construction should show rapid ink absorption as a result of the inter-connecting pores that exist between the silica particles and provide an open pathway to the surface of the media. As a consequence of the open pores, pollutant gases in the atmosphere, such as ozone, have direct access to the colorants that are printed on the media thus subjecting any dye-based colorants to rapid density loss unless additional measures such as laminating or placing the product behind glass are employed.

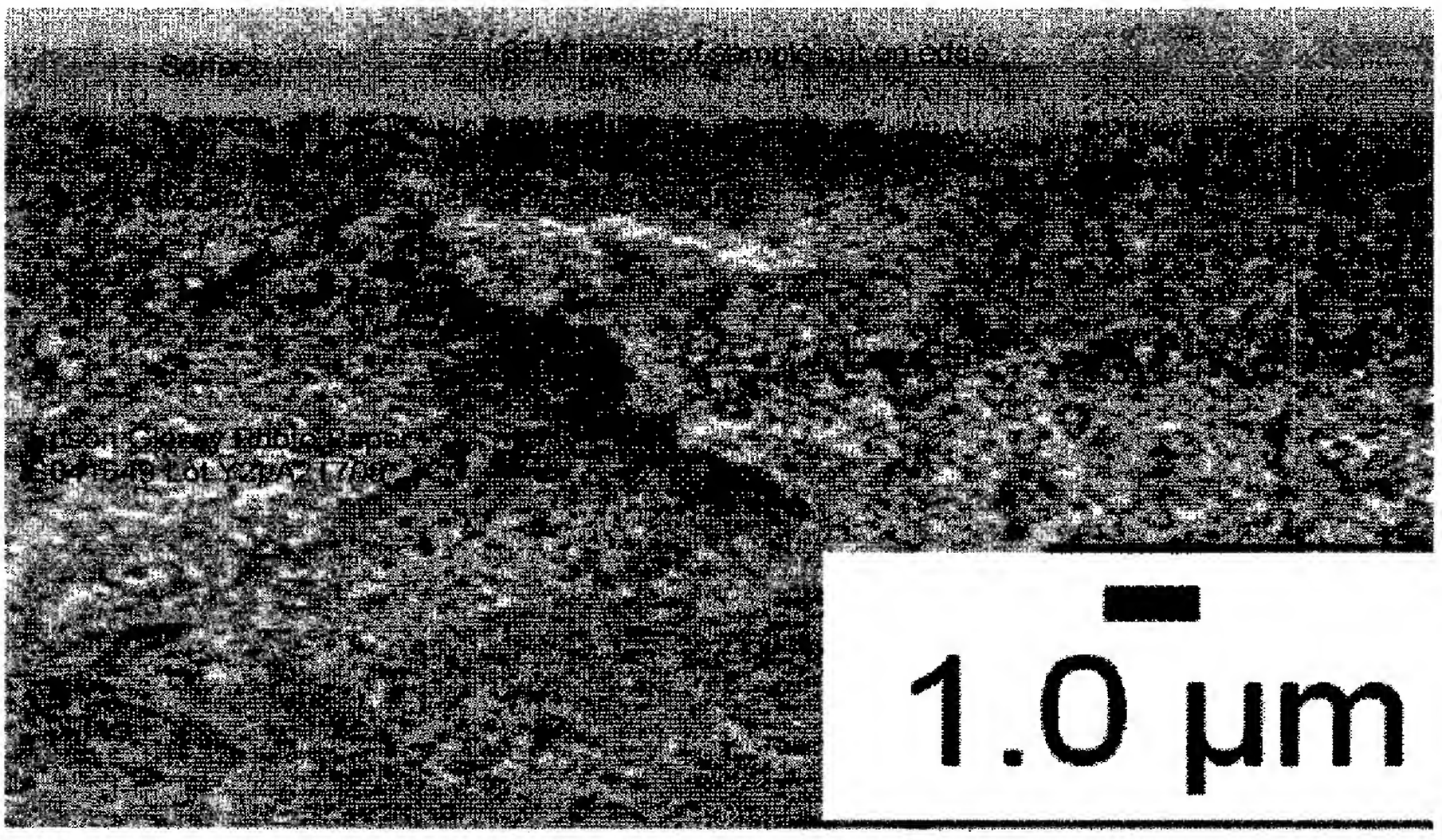
Cross-Section imaged with optical microscope to show layer structure.



Scanning Electron Microscope (SEM) image of sample surface showing the open pores that create a pathway from the surface into the media. Drying cracks are also evident and these occur in part as a consequence of the low level of binder used to hold the silica particles together.



Scanning Electron Microscope (SEM) image of sample after cutting the edge with a straight razor-blade to show the size and frequency of voids between the silica particles that create inter-connecting channels for the ink to come off the surface and into the media. Air and pollutant gases can also enter the media through these open pathways.



I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, under Title 18 § 1001 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 11/3/08 Steven W. Clark

Steven W. Clark